From: Ryan Boder
To: Microsoft ATR
Date: 12/21/01 11:38pm
Subject: Microsoft Settlement

Attached is an Adobe Acrobat file that includes my comments on the settlement. If you cannot view an Acrobat file please inform me and I will send you another format. Thank You.

Ryan Boder

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To the United States Department of Justice:

I am writing in response to the proposed settlement which is currently under the 60 day public comment period. I consider myself to be a person whom the outcome of this case will have a very significant effect. Currently, as a senior at Carnegie Mellon University, majoring in Computer Engineering and minoring in Computer Science, I am naturally looking for a place in the computer industry in the very near future. As I compare companies and go from interview to interview I am realizing a very hard to face reality. There are almost no jobs available in my field that really interest me. My main interest is in operating system development and I would like to work on a desktop OS. I am a proponent of open source software and some day I hope to either work for or have started an open source software company. But the reason I am writing you today is because I don't understand why it is so difficult to find a job doing what I want do. I believe the answer to that question is the lack of an actual competitive operating systems market. Sure I could go to work for Microsoft, but then I don't like Redmond and more importantly, I don't like the company who illegally injured the industry I want to work in.

Then I begin to think to myself, what about my colleagues? What about my friends in the Computer Science department who aren't really interested in working on an operating system but would love to find a good job developing cutting edge office software or get a job developing some kind of networking application that people would actually use. What should they do? Should they go to work for Microsoft also?

The fact is that now, Microsoft has a monopoly on not only operating systems, but also to a lesser degree, office software and web browsers. They have blatantly and obviously abused this monopoly in many cases over the years and it has to stop. The DOJ has made that very clear.

I have carefully read the "Complaint", "Stipulated and Revised Proposed Final Judgment" and the "Competitive Impact Statement" files from the case web site and while they do cover many of the needed changes that need to be made, I do not feel they properly punish the Microsoft Corporation for hurting such a large number of people and an entire industry as they have done. In fact, I do not feel they punish the Microsoft Corporation at all. They do a very good job at setting rules so that it will be more difficult for Microsoft to abuse it's monopoly in the future.

This in itself is a good thing but the damage has already been done. While Microsoft

was using it's operating system monopoly to keep competitors from competing, it was also illegally building an empire that it does not through legal business practices deserve to have. And who pays the price for their actions? I do. My friends do. Every other company in the the world who is completely and utterly dependent on Microsoft products does.

The DOJ claims that while we all realize that Microsoft is an illegal company, it would be in the best interest of the general public to settle now because it provides "effective and certain relief". I admit that it provides a certain action to be taken place, but I disagree that it provides certain relief. Let's say two warriors start out as equal competitive fighters. Then one, through an illegal means, grows 100 times as large as the other. Finally the king steps in and says to the the criminal warrior, "Now you have to abide by the rules, but you will not be punished for you actions". Is it going to be a fair fight now? You are effectively pitting David against Goliath except this is no religious fairy tail, this is the computer industry in the 21st century.

My opinion of software

I have learned software is unlike any product that we have ever seen in history.

1. It takes a long time and a lot of work by smart people to make good software.
2. It can be developed at very little *actual* cost besides time.
3. Once a usable version is released, it can be "manufactured" at practically zero cost.
4. It is never actually done. There are always bugs and defects that can be improved.

So from the inherent properties of software, it seems as though this would be one of the easiest industries to get into. But for some reason even huge organizations like Netscape, Sun, Compaq and many other are struggling or have failed because they were unable to compete. Not to mention the many small software companies that have fallen before they even left a mark. The reason for this is that standards are not open to the public.

What constitutes a standard

A standard is a specification that a group of people have agreed upon so that they can work with each other and not against each other. A communications protocol that everyone on the internet uses is a standard. A programming API that programmers around the world have agreed upon is a standard. A file format that everyone in the business world uses every day to communicate is also a standard. In fact, it might even be considered a communications protocol since it is a method for the person who creates the file to communicate with those who read the file. Standards are a great idea but what happens if a single person or company owns a standard?

Why standards should be public domain

When a standard is public domain everyone can use it. When a standard is proprietary then only the people who satisfy a condition set by the owner can use it. The example I would like to mention here is the Microsoft Office binary file format. This is a perfect example of what happens when a standard is owned. Microsoft and only Microsoft has the ability to truly read and write to Office documents. Others can try and come very close to succeeding, but unless the standard is completely opened one cannot truly be compatible with it. The Office software that I am using to write this paper claims to be Microsoft Office 2000/XP compatible, and for all intents and

purposes it is. I have been able to read and write every Microsoft Office file that has come my way with the OpenOffice.org software. Basically what has happened is a group of very talented programmers from Sun Microsystems and the general public have put a lot of time and effort into reverse engineering the Microsoft Office binary file format. The reason for this effort is so that when a person uses their product he or she is not constrained by the twenty Microsoft Office files sent to them every day that they are expected to open and read. Most of the people who send these files have never heard of and can't even fathom the idea of using something other than Microsoft Office to do daily office work. So if the OpenOffice.org people could do it, then there is nothing to worry about, right? Wrong. They were placed at an extreme disadvantage from the start and have still managed to develop a product that I guarantee you can compete with Microsoft Office from a technical standpoint. However, those hours spent tirelessly reverse engineering a binary format could have and should have been spent doing something else. They could have been working on other parts of the program to give it even more useful features than it already has. The Microsoft programmers did not have to worry about this dilemma because they exclusively had the standard. There is no intellectual property in the Microsoft Office file format. In fact it is agreed upon by most people in the software industry that a text based format (such as XML which is what OpenOffice.org uses for their native file format) works better for these types of files. So why does Microsoft continue to use a binary format and not share the specification? Because they know that if they did either of these things they would suddenly have to compete with other software developers and might lose the stranglehold they now have on office software and thus, on every business in America.

Let's assume I convince a non-computer person to try the OpenOffice.org software or Sun Star Office and one day they get a Microsoft Office file that doesn't look right when they open it. I guarantee you the first thing they will think is that their program is bad and Microsoft Office is better because Microsoft Office could open that file while OpenOffice.org could not. (I have never actually seen that happen because those OpenOffice developers did such a good job, but this is a hypothetical situation) Is it because the OpenOffice.org developers are not as good as the Microsoft developers? That question can't really be answered, but as a software expert I seriously doubt it. When a company owns a standard protocol it is inherently anti-competitive and everyone (except Microsoft) loses.

What must be done

These standards all need to be completely and absolutely open to the general public and anyone who wishes to compete. The settlement has the right idea in disclosing most communications protocols and API's but that doesn't cover it. All communications protocols, all API's and all standard file formats need to be opened up to the general public. There is no way to have a competitive market otherwise. I place a big emphasis on file formats because the DOJ has not mentioned them at all in the stipulations of the Final Judgment proposal. They are just as important as communications protocols and in my opinion should be treated exactly as communications protocols for the duration of this case.

The only argument the DOJ has given against opening all protocols is that the ones that are security related should be kept secret. I realize that in the "Competitive

Impact Statement" it was explained that this exception was only for authorization tokens or keys, but it seems to me that the wording for the actual stipulation is weak and that it will allow Microsoft the ability to still close access to certain functionality under the "It's for security purposes" umbrella. What must happen is that all protocols, all API's and all file formats be completely opened to the general public.

Why the general public

The parties mentioned in the stipulations who are protected from anti-competitive acts are ISVs, IHVs, IAPs, ICPs, and OEMs. These people deserve to be protected, but what about open source software developers? Why are they excluded from this list? Do they not have as much a right to this information as the independent software vendors? Where do you draw the line? Redhat is an independent software vendor, but they produce open source code, so how can they sign the non-disclosure agreement when they always "disclose" their software? What about the many other software companies who produce open source products? Are they not independent software vendors? Bill Gates argues that they are not and that they ruin the country because they don't pay taxes, but something tells me that if Redhat didn't pay their taxes they would be punished. Would opening these three standards: protocols, API's and file formats to the general public cause any harm? No way. If you are going to open them to competitors, open them to all competitors, not just the competitors Microsoft has beaten before (in many cases illegally) and already have a huge advantage over. Open them to the open source software developers who not only are some of the most eager people to see them, but also the last group in the world that Microsoft wants to compete with. This is the group that has Microsoft worried sick because they actually might be able to legitimately compete.

How it should be done

I do not want to see the DOJ settle on this case and believe me, I will be lobbying my home state to jump back in this fight. On the other hand, if it the DOJ is going to settle now I hope that they do it the right way. Yes, the Technical Committee is a good idea and I hope the people who get hired to do the job never let one mistake slip by. The TC has the right to hire as many as it deems necessary to help carry out its task and I hope they do so without holding back. The TC should hire a team of as many programmers and technical writers as it needs and have them prepare and maintain the documentation that will be provided to competitors. Do not let Microsoft be responsible for this task. Let people who actually care about the cause and are passionate about getting these standards out there and helping their colleagues compete fairly handle this important job. Don't leave it up to Microsoft who has only to lose from this stipulation and has for so long kept it secret.

As I have stated before, I do not think that this final judgment will induce a competitive industry as it is supposed to. I believe that while on the right track, this proposal has some weaknesses and some stipulations that are likely to not be enforced at all. Also it does not in any way punish Microsoft for the crimes they have been committing for the past decade. Here are the stipulations that I question, denoted by letter and number from section III of the proposal, "Prohibited Conduct".

Section III: Prohibited Conduct

C)

1. The part about allowing them to restrict OEM's from installing software that provides a particular type of functionality as long as the restrictions are non-discriminatory between non MS products and MS products. Microsoft will be able to take advantage of that by claiming that a product that competes with their own product has a prohibited type of functionality. It is easy to take two programs that provide a similar function but in all other aspects provide different functions, and say they are two different types of products prohibiting the competitive product.

3. The restriction that non-MS middleware must either not display a user interface or should display a user interface similar to the corresponding MS product. This forces competing software vendors to follow Microsoft's lead in these type of products. Then to the user it seems that Microsoft is the only innovator and the other vendors are merely copying. I believe there should be no restrictions whatsoever on competing middleware products. With this exception, Microsoft is allowed to define the configuration of the desktop. That should be the job of the OEM.

D)

- This is one of the most important rules to stop Microsoft from illegally abusing it's monopoly as it has done consistently and effectively in the past. The settlement is right on the concept here but you are leaving out the single most important group that wishes to have access to this API: the public. The general public includes people like myself and other software developers who use and maintain software products that compete with Microsoft products. Open source software developers and the general public want access to those API's just as badly as the commercial organizations mentioned. And we deserve access just as they do. Microsoft API's are not and cannot be considered intellectual property because of Microsoft's monopoly on the entire software industry. Those API's are a de facto standard and must be treated as such. My personal opinion as well as many other software experts like myself believe that no API should ever be closed to anyone for any reason. However, I am willing to not argue that debate in this paper because that is not what this settlement is about. I do believe that Microsoft will continue to abuse its monopoly if these API's are not released to the general public with all documentation. The reason is that I believe competitors to Microsoft are growing out of the hard work and effort of the Free Software Foundation and the GNU organization, the Linux Kernel, distribution providers such as RedHat, MandrakeSoft, Suse, 3T Solutions and many other equally important open source software developers. The open source movement has utilized a method of creating better software, that even a closed source giant like Microsoft itself will have to work very hard to keep up with. Unless these de facto standard API's are released to them and the public, there will not be competition in the software industry. As for the other closed source software vendors, they most likely will not be able to compete with Microsoft even with the API's simply because Microsoft will bury them in marketing and other tactics such as the infamous "Embrace and Extend" strategy that was used to retard the popularity of excellent ideas such as Java, Javascript and ANSI C++. Please do not allow Microsoft to harm the industry and the public more than it already has by allowing them to define the playing field

even more. In conclusion to this section, the DOJ must force Microsoft to release any and all programming API's and communications protocols to the general public, so that competing open source software developers can make their products compatible with the de facto standard products of the Microsoft monopoly.

E)

- This is a very good and necessary stipulation, but it does have a weakness. I tend to learn from experience and it has shown that the Microsoft Corporation will do anything and everything it can, stopping at nothing to not just help it's own products, but to also injure and even paralyze the products of all of it's competitors. We have seen Microsoft make illogical technical decisions for the sole purpose of killing excellent products like Netscape Communicator and Sun Java technologies. Therefore, I do not trust Microsoft to handle such an important task as making all communications protocols absolutely and completely open to all people. For example, Microsoft's biggest fear right now is the GNU/Linux Operating System becoming as easy for a computer user weaned on Windows as Microsoft's own OS. They have good reason to be afraid, since these systems have a history of being more stable and secure than Windows. However since Microsoft owns the vast majority of the desktop Operating Systems being used today, it is imperative for every single Microsoft communications protocol to be open and available for any (competing) open source developer. Otherwise an ignorant user will make the assumption that the competing system is broken, because it does not easily communicate with all the Windows systems they already have. I have suggested a possible solution to this problem above in the "How should it be done" section.

G)

1. This stipulation is contradictory. It claims that Microsoft may not enter into a contract that will force the other party to exclusively or favorably deal with Microsoft products as opposed to competing products. Then it says that they actually can do this as long as they can provide numbers that show it is reasonable to favor the Microsoft product. (In good faith? Who are we talking about here?) Since Microsoft has such a large percentage of the market they will always be able to produce numbers that show this. Besides, if you want to see how the Microsoft Corporation likes to fudge numbers, ask them how exactly they came up with the availability rate for their web servers. They are a monopoly and achieved that through marketing and questionable business practices. That is not what got them their enormous market percentage, rather it was abusing that monopoly that made it difficult and sometimes even impossible for their competitors to sell enough product to stay in business. (Even in the cases where the competing product was technically superior) The DOJ must never let them enter into an agreement that removes the other parties right to use a competing product.

H)

3. Along with this stipulation, there should be a message defined by the DOJ that is used every time windows tries to automatically change settings. Also, there should always be an option that the user can choose that will permanently disable each automatic configuration change. This must be clearly explained when asking for

user confirmation so that, for example, my grandmother can read and understand exactly what choices she has. The reason for this is simple. Microsoft, if given the opportunity, will ask if the user wishes to change settings on a regular basis so that the user will become extremely annoyed. Then they will use phrases like "Internet Explorer is currently not your default web browser. Would you like to make it your default? (Click yes to make this message stop appearing)". There should always be an option such as "No, keep SomeBrowserName as my default web browser and don't ask me again". Also, the DOJ should define these messages to keep Microsoft from wording it like this, "Keep SomeBrowserName as my default web browser (Some functionality may be lost)". If I am the kind of person who gets nervous about things like using a different program than Word to write a paper, then that statement will be enough to scare me into using IE. Microsoft's Operating System monopoly gives them the power to make any program they want look bad. A perfect example of this is the Caldera vs. Microsoft case where Windows was generating false error messages when run on DR-DOS instead of MS-DOS. They have abused this power many times with their FUD attacks and messages like the one shown above. This must be stopped and only the DOJ has the power to stop it. In the freeway of the software industry, Microsoft has built the roads that most people drive on and history has shown us that only Microsoft brand cars are allowed a smooth drive. This must be changed.

H - Exceptions:

1. Assuming that all communications protocols and programming API's are open to the public, this should never be an issue because any decent non-Microsoft program will be able to handle the users requests.

2. If the user has installed a program that is unable to handle that request, then the user most likely had a very good reason for it and probably doesn't want Windows stepping in and changing that for them. Also, this stipulation gives Microsoft programs an inherent competitive advantage over other programs. When Windows decides a program failed (which will be up to Windows' own discretion?), it steps in and uses a Microsoft program to handle it. But when a Microsoft program fails to handle a request, will Windows step in and use a non-Microsoft product to handle it? No way. On top of all this, it gives Microsoft the ability to leverage the content of their web sites in the same manner that they leveraged the Windows OS to stamp out competitors. I know plenty of people who would not even consider using a non-IE web browser at all if they couldn't access the web sites maintained by Microsoft with it. I remind you of the day, a couple months ago, when they tried to block all non-IE web browsers from viewing msn.com. This attempt was met by an uproar from non-IE users and they removed the block in fear of looking bad in public. With Microsoft extending it's presence into basically all other industries that deal with information distribution and digital media (as they have been doing at a steady rate), this will only get worse. The DOJ must force Microsoft to not switch to a Microsoft program when accessing Microsoft's servers. They must let any program access it and the communications protocol must be completely available so that all other developers can make their client software also work with Microsoft's servers. If the competing middleware doesn't work then let the user choose to stop using it.

J)

1. Why not? As has been shown in the past time and time again, reverse engineering or even random hacking can and will find those API's and find the security holes in them. Also it has been shown by software packages such as OpenSSH, a program is more secure when it is open for not just the hackers that sit around all day and reverse engineer hidden protocols to find exploits, but also to users who may find the exploits first and then tell the developer to fix them. I don't want to hear that my own government, the people who are supposed to protect me, are relying on a protocol or API hidden in Windows for security. No one is asking for authorization keys or tokens that are hidden in windows. Those should stay hidden and with good reason, but the protocol or API should be open and available. There is no way for a non-Microsoft product to compete with a Microsoft product when Microsoft can access parts of the OS that competing products can't with hidden protocols or API's.

2. This section specifically allows Microsoft the ability not to describe to or license their "secure" API's and protocols to their number one competitor, open source software. Do you think that they will disclose these protocols to open source programmers when they have the power to discriminate against a business that does not "meet reasonable, objective standards established by Microsoft for certifying the authenticity and viability of its business" when Microsoft publicly describes the GPL as a cancer? This stipulation is anti-competitive by nature and does not belong in this proposal. As noted by Robert X. Cringely, Microsoft can and will take advantage of this power. The people who have a desire to crack those protocols can and will crack them whether the DOJ and Microsoft wants them to or not. How long did it take before the eBook anti-piracy code was cracked? Or how about the DVD decryption algorithm? I can't think of any reason to allow them to keep hidden any communication protocol other then to allow them to use Windows as leverage to keep customers away from competing products. The first thing my operating systems professor said in his security lecture was, "If the security of your system relies on others not knowing how it works, then you're in a lot of trouble". The reason Microsoft wants it this way is to keep open source software projects from competing. The DOJ cannot allow this.

Conclusion

To conclude this paper I will reemphasize the most important points:

1. Microsoft monopolized, and through illegal abuse of that monopoly, retarded the growth of the entire software industry. These illegal actions have injured myself as a software developer along with my colleagues. They have also injured Microsoft's own customers through high prices, lack of choice in purchasing a product and lack of innovation. There is no reason to innovate when you aren't competing against anyone at all.
2. The most important change that must be made to stop this illegal abuse of power is to open all standards up to the public. The keys standards I mention in this paper are communications protocols, programming interfaces and file formats. The most important being file formats because the DOJ did not even mention them in its Final Judgment.
3. The Final Judgment only includes opening these standards to independent software

developers with a non-disclosure agreement. The standard must be opened to the general public so that all can compete fairly, including Microsoft's most fierce competitor to date: open source software.

4. Even if all the changes I mentioned are made, Microsoft will still be the undisputed leader in the software industry and will remain that way for a long time unless they are actually punished for their crimes. This final judgment is what I consider a slap on the wrist, considering the amount of people they have harmed and the software industry that they have corrupted.

I ask the DOJ to reconsider it's decision to settle and put Microsoft on trial. They are guilty and they will be found guilty if tried. If the trial takes two years, so be it. At least then they will be convicted and they will be punished. The Final Judgment does not offer any kind of certain results and it might not change anything. Microsoft has been building up an empire while they illegally shut down all competition and that empire will still be strong even if they do have to compete fairly from this point on. I urge the DOJ to put Microsoft on trial, and if (when) they are found guilty, punish them as they deserve to be punished.

If the DOJ decides to continue with the settlement, I urge that they strengthen some of the stipulations, add the general public to the list of those protected and completely open the three key standards mentioned in this paper. For all those who have been injured by the illegal activities of the Microsoft Corporation, they have my sympathy and hopefully the sympathy and support of the government of the United States of America.

Sincerely,
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